

## **AMENDMENTS TO SPECIFICATION**

Please replace paragraph [0001] of the specification with the following paragraph:

This application is a continuation-in-part of U.S. patent application having Ser. No. 10/053,669 filed Jan. 24, 2002, which is a continuation of U.S. patent application having Ser. No. 09/365,690, filed Mar. 10, 1999, now U.S. Patent No. 6,372,440, all of which are incorporated herein. This application is also a continuation-in-part of U.S. patent application having Ser. No. 10/695,536, filed October 28, 2003, now U.S. Pat. No. 6,855,826, which is a divisional of U.S. patent application, having Ser. No. 09/635,266, filed Aug. 9, 2000, now U.S. Pat. No. 6,455,734, and U.S. patent application having Ser. No. 10/230,133, filed Aug. 29, 2002, now U.S. Pat. No. 6,664,420, which is a divisional of U.S. patent application, having Ser. No. 09/635,266, filed Aug. 9, 2000, now U.S. Pat. No. 6,455,734, the entirety of the disclosures of which are hereby specifically incorporated herein by reference.

Please replace paragraph [0059] of the specification with the following paragraph:

Any antibodies that have sufficiently high affinity for the target analyte may be used in the practice of the present invention, and preferably the antibodies are monoclonal antibodies. See, e.g., Harlow and Lane (1988), or Goding (1986). Affinity constants can be determined in accordance with any appropriate method known in the art, such as that described in Holvoet et al. (1994)(U.S. Pat. No. 6,309,888) which is incorporated in its entirety herein, by this reference. Although antibody-antigen reactions are highly specific, in some cases antibody elicited by one antigen can cross-react with another antigen. For example, such

cross-reactions occur if two different antigens share an identical epitope. However, the cross-reacting antibody's affinity for one antigen may be considerably less than its affinity for the other antigen (Kuby, 1991), or the affinity of an antigen for a cross-reacting antibody may be below the detection limit of a given assay. This may result when, for example, an antibody is directed against a conformational epitope which is only efficiently exposed by one of the cross-reacting antigens. Monoclonal antibodies may be screened by any method known in the art, such as enzyme-linked immunosorbent assay (ELISA), immunoradiometric assay (IRMA), and immunoenzymometric assay (IEMA), ~~ELISA, IRMA and IEMA~~, and tested for specific immunoreactivity with the peptides of the invention or fragments thereof (Harlow and Lane, 1988).

Please replace paragraph [0018] of the specification with the following paragraph:

The present invention relates to methods for assessing a predisposition to physiological disorders, such as: sodium-sensitive (salt-sensitive) essential hypertension; type 2 overt and prediabetes mellitus associated with the MgBD; and preeclampsia/eclampsia syndrome. The subnormal binding of magnesium to plasma membranes of the somatic cells is critically associated with an individual's susceptibility to develop such disorders. More specifically, the present invention has identified amidated peptides in blood plasma which are associated with the magnesium binding defect, and therefore, useful in the practice of the present invention. These amidated peptides characterize the amidated C-terminal amino acid sequences of all tachykinins, ~~tachykinins~~, of mammalian origin, i.e., Phe-X(Phe,Val)-Gly-Leu-Met-NH<sub>2</sub>. It has been

discovered as reported herein, that the determination of the level of these amidated peptides in blood plasma of an individual can identify individuals having such physiological disorders, as well as those with a predisposition to develop such physiological disorders. As a result, the treatment of the disorders in these subjects can then be more specifically managed, for example, in the case of salt-sensitive essential hypertension, by dietary sodium restrictions.

Please replace paragraph [0034] of the specification with the following paragraph:

In one aspect of the present invention, methods for assessing a predisposition to, and for monitoring the progress ~~pro~~gress of treatment, of abnormal physiological states associated with the magnesium binding defect is provided. The methods include measuring the level of one or more of the disclosed peptides in blood plasma or other body fluids and comparing the level to a standard, wherein a significantly lower level of peptide is indicative of the presence of the magnesium binding defect. In one embodiment of this aspect, the abnormal physiological state is the presentation of preeclampsia during pregnancy. In another embodiment, the abnormal physiological state is salt-sensitive essential hypertension. In yet another embodiment, the abnormal physiological state is type 2 overt or prediabetes mellitus. In a further embodiment, salt-sensitive essential hypertension is distinguished from salt-resistant essential hypertension. In yet a further embodiment, type 2 diabetes mellitus associated with the MgBD is distinguished from solely lipotoxic (lipid-induced) type 2 diabetes mellitus which is not associated with the MgBD.